## NOTES—

### Help for Ailing Caterpillars?

Anyone who raises Lepidoptera has probably had the experience of losing a large number to disease. This can be frustrating and disappointing if an ambitious program is interrupted by such mischance. This method, which I tried one summer with a few saturnid moths, is reported in the hope that it may be helpful to others.

In June, 1961 I had received about two dozen cecropia eggs and was raising the caterpillars in sleeves on wild cherry trees at my summer cottage in Bucks County, Pennsylvania. In this method, a bag is made of lightweight muslin or netting. The eggs are placed in the bag and the bag is arranged around a terminal branch of a tree with the mouth of the bag tied tightly around the branch. In this way, the hatching larvae have a supply of fresh leaves without the chance of escaping and they are protected from predators. Since I am only at the cottage on weekends, I could care for the larvae only 2 days a week. The larvae were just beginning to hatch in the middle of June when our family departed on a 2-week vacation trip. The larvae were given to a friend, who continued their care in Connecticut while I was away.

When I returned and my friend gave me back the larvae on July 7, I was appalled to find that they had become infected with a disease. During this period, my friend had them all in a large container and had fed them on oak, willow, maple, and wild cherry leaves, all of which they ate interchangeably. Presumably they had picked up the disease from the leaves, or from the fecal contamination of their food. More than half were dead and most of the rest dying. The remaining half dozen I took back to Pennsylvania the following weekend. However, I decided to try an antibiotic treatment before returning them to the sleeves on the wild cherry trees.

Most department stores or pet shops carry an antibiotic, "petmycin," for use with small birds; about a half dozen pellets to a package. The resulting solution disintegrates quickly, so it is necessary to prepare a fresh solution for each treatment. I took one pellet and dissolved it in water according to the directions. I then immersed a few leaves of wild cherry in the solution until their surfaces were entirely covered by the fluid. The leaves were removed from the antibiotic solution, and the excess fluid was shaken off. The larvae were put to feed on these antibiotic-treated leaves, one larvae each in a round, plastic, pint-size food container.

Deciding that I should have a control, I gave untreated leaves to the healthiest, biggest larva, which as yet showed no sign of the disease. The other five larvae received only the leaves which had been immersed in the antibiotic during the 2 days of the weekend. Late Sunday afternoon, before leaving the cottage for 5 days in the city, all larvae were put back in sleeves on the wild cherry trees. Two of these larvae were so far gone that they refused to eat at all, and they died. The other three sick larvae recovered, grew to pupation, and were put away for the winter. The control, the larva fed untreated leaves, also pupated, and it was kept separately for the winter. The following spring the three larvae, which had received the leaves soaked in the antibiotic, emerged as moths, while the "healthy" control larva did not emerge. When I broke open the pupal case, there was nothing inside.

It would be interesting to know of similar or different techniques which others have used to help ailing caterpillars.

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